

ABSTRACT OF THE DISCLOSURE

A method for detecting a target nucleic acid molecule or target nucleic acid molecular complex comprising: (a) contacting two or more probes complementary to the molecule or molecular complex, said molecule or molecular complex being labeled with one or more fluorescent dye molecules of the same dye or labeled with two dyes that are indistinguishable by their emission characteristics in an assay instrument, wherein each probe interacts specifically with a different target nucleic acid sequence or a structure on the molecule or molecular complex; and (b) detecting interaction of the probes with the molecule or molecular complex, said interaction being detected by an increase in fluorescence intensity during a detection interval having a fluorescence intensity above the fluorescence intensity of any individual free probe, wherein molecule or molecular complex is analyzed such that only individual molecules or molecular complexes in contact with a probe are within an interrogation volume and within a detection time interval.